REMARKS

This amendment is responsive to the office action dated August 23, 2005.

Claims 1-10 were pending in the application. Claims 1-10 were rejected. No claims were allowed.

By way of this amendment, the Applicant has amended Claims 1 and 10. Claims 2-9 remain unchanged.

Accordingly, Claims 1-10 are currently pending.

I. OBJECTION TO CLAIMS

Claim 10 was objected to as reciting "a first and second contact". This wording has been amended to read "a first electrical contact and a second electrical contact". In addition, the surplus phrase in line 3, "said first contact" has been deleted.

Accordingly, the Applicant believes that this amendment has clarified the issue identified by the Examiner. Reconsideration and withdrawal of this objection is respectfully requested.

II. DOUBLE PATENTING REJECTION

Claims 1-10 were rejected under the doctrine of obviousness-type double patenting in view of US Patent No. 6,827,468. Since the cited patent and the subject matter of the present invention were invented by the same inventor, Robert D. Galli, and since both the cited patent and the present application are both owned by the same person, the Applicant has enclosed herewith a terminal disclaimer with the required fee and a Power of Attorney.

In view of this Terminal Disclaimer, the applicant believes that this double patenting rejection is no longer applicable. Reconsideration and withdrawal of this rejection is respectfully requested.

III. REJECTION OF CLAIMS UNDER 35 USC 103

Claims 1-10 were rejected under 35 USC 103(a), as being obvious over US Patent No. 6,541,800 (Barnett) in view of US Patent No. 6,452,217 (Wojnarowski et al.). The Examiner stated that the Barnett reference discloses a prepackaged light emitting

diode assembly including an LED with a front luminescent portion, a mounting base with a heat transfer plate on the rear surface, first and second contact leads extending from the mounting base and a mounting die having a cavity for receiving the prepackaged LED. The Examiner stated that while Barnett does not teach the plate at the rear of the mounting base being thermally conductive, Wojnarowski teaches an LED with a thermally conductive plate therein and it would have been obvious to make the mounting die thermally conductive and therefore the present invention is obvious and unpatentable.

In comparing the elements of the Barnett and the present invention however, the rejection has incorrectly identified the elements of the cited device. The prepackaged LED in Barnett is received into a mounting device 54 that is simply a retention ring for fastening the LED to a printed circuit board. The Barnett mounting dies is a device having a top wall wherein sidewalls extend downwardly around the periphery of the LED and are captured in the printed circuit board to retain the LED in the desired position. At no time does the cathode post at the rear of the LED come into contact with the wall of the mounting die. In reality, the cathode at the rear of the LED does not ever come into contact with any part of the mounting die.

Further, while the prepackaged LED assembly of Barnett does in fact include a front luminescent portion and a mounting base, this is where the similarities as compared to the present invention end. The Barnett LED has a cathode post extending downwardly from the rear of the mounting base. The reason this post extends away from the LED in this manner is due to the fact that the post is one of the points of electrical interface for the LED. Accordingly, in order to energize the LED an electrical contact must be attached to this post. The only other object that extends outwardly from the side of the mounting base is the annular anode.

In clear contrast, the present invention, the claims require that the mounting die have a rear wall wherein the LED is placed such that the heat transfer plate on the rear of the LED is in thermal communication with the rear wall of the mounting die. It is clear from the disclosure in the cited Barnett reference that at no time does the mounting post

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62 on the rear of the LED ever contact the rear wall of the mounting die 54. In fact, the LED never cones into contact with the mounting die 54 at all. A lens 18 is positioned over the LED and is then clamped against the LED by the mounting die 54. There simply is no contact between the thermal transfer plate at the rear of the LED and the mounting die in clear contrast to the claimed limitations of the present invention. The present invention requires that the thermal transfer plate (a separate and distinct element from the first and second electrical contacts) on the rear of the LED be in physical contact ant thermal communication with the mounting die. This is not shown in the cited reference.

The Wojnarowski reference is then cited for teaching that the mounting die be constructed as a thermally conductive element. The rejection again tries to apply the package level structures disclosed in Wojnarowski to the separate and distinct mounting die structure of the present invention in order to arrive at the present invention. The cited reference is concerned with all of the elements required to create a light emitting diode at the ***package*** level. Accordingly, the interior mounting die referred to is the small mounting cup within the LED package itself to which the emitter chip is directly mounted. The mounting die of the present invention is a separate element that is installed behind the heat transfer plate of the packaged LED. Therefore, the element referred to in the rejection as the mounting die is actually the heat transfer plate. So in this case, Wojnarowski either has a mounting die or a heat transfer plate, it does not have both.

In contrast, the present invention is directed to taking a ***prepackaged*** and fully completed high-brightness light emitting diode and further incorporating into other functional devices such as flashlights or architectural lighting. The claims have been amended in an attempt to clarify this difference. The claims of the present invention are directed to a device that incorporates a prepackaged LED into a heat sink assembly. Specifically, the claims start with a prepackaged LED that includes an emitter chip installed into a interior die with the required wire bonds to make the device functional and which is then fully encapsulated within a hermetically sealed optical enclosure. The present is not concerned with the particular details of the manufacture of the LED and its

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package as all of the elements of the present invention are directed at taking the ***completed and prepackaged*** LED to further install it into another device. Accordingly, the interior mounting die of the present invention is not the element within the LED package that receives the emitter chip directly, the interior mounting die is an element that the fully completed and prepackaged LED is mounted onto. Further, the electrical leads are not leads extending from the mounting die as stated by the Examiner, they are leads that extend from the sides of the LED package itself.

The heat transfer plate of the present invention is a plate that is typically incorporated into the rear of presently manufactured high brightness LED packages and is a part of the LED package. It is not simply the rear surface of the emitter chip as the Examiner has stated. The heat transfer plate is a plate that is in thermal communication with the mounting die within the LED itself. The mounting die of the present invention is then placed on the exterior of the prepackaged LED in thermal communication with the thermal transfer plate at the rear of the LED package.

Each one of the elements of the present invention are directed to elements that are ***external*** and ***in addition to*** the analogous elements found within the LED package itself. Neither of the cited references, Barnett or Wojnarowsk, provides for a mounting die that is a separate element, which is distinct from the heat transfer plate within the LED package, that is in turn installed behind the LED in a manner that the mounting die is in physical and thermal communication with the thermal transfer plate. Since Claims 1 and 10 of the present invention recite numerous elements that are not disclosed in the cited references, the rejection is not believed to be applicable. Additionally, since Claims 2-9 depend from now allowable Claim 1, they are also believed to be allowable over the cited combination. Reconsideration, and withdrawal of the rejection is respectfully solicited.

IV. CONCLUSION

Accordingly, claims 1-10 are believed to be in condition for allowance and the application ready for issue.

Corresponding action is respectfully solicited.

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Respectfully submitted,

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